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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/037,602	10/19/2001	Frank W. Engle	DC 101	6384

7590

05/05/2003

STANLEY Z. COLE  
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Los Altos Hills, CA 94022

EXAMINER

LARKIN, DANIEL SEAN

ART UNIT

PAPER NUMBER

2856

DATE MAILED: 05/05/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.  
10/037,602

Applicant(s)  
ENGLE et al.

Examiner  
Daniel Larkin

Art Unit  
2856



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE ONE (1) MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-58 is/are pending in the application.
- 4a) Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claims 1-58 are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some\* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). \_\_\_\_\_ 6) ☐ Other:

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***Election/Restriction***

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-19, drawn to a system for measuring transmission of a selected gas of interest through a barrier material, classified in class 73, subclass 38.
- II. Claims 19-28, drawn to a method for continuously measuring the diffusion of gas through a permeable barrier material, classified in class 73, subclass 38.
- III. Claims 29-38, drawn to an apparatus for measuring transmission of at least one gas of interest through plastic barrier materials, classified in class 73, subclass 38.
- IV. Claims 39-45, drawn to a method for determining the transmission characteristics of at least one gas of interest through barrier materials, classified in class 73, subclass 38.
- V. Claims 46-49, drawn to a system for measuring transmission of a gas or gases of interest through a barrier material, classified in class 73, subclass 38.
- VI. Claims 50-55, drawn to a method for measuring transmission of a gas of interest through a barrier material, classified in class 73, subclass 38.
- VII. Claims 56-58, drawn to a method for determining the gas transmission characteristics of a given gas of interest through a given barrier material, classified in class 73, subclass 38.

The inventions are distinct, each from the other because of the following reasons:

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2. Inventions (I, III, V) and II are related as process and apparatus for its practice. The inventions are distinct if it can be shown that either: (1) the process as claimed can be practiced by another materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different process. (MPEP § 806.05(e)). In this case, the apparatus recited in Groups I, III, and V can be used to practice another materially different process such as measuring the transmission of a selected gas through a barrier material by measuring the concentration of gas in a measurement chamber rather than measuring the partial pressure as required by the process recited in Group II.

3. Inventions I and III are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because all of the limitations of Group III are not found in Group I. The subcombination has separate utility such as an apparatus to transmission test plastic barrier materials while monitoring the integrity of the chambers and calibrating the mass spectrometer while the turbomolecular system is actuated.

4. Inventions I and IV are related as process and apparatus for its practice. The inventions are distinct if it can be shown that either: (1) the process as claimed can be practiced by another materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different process. (MPEP § 806.05(e)). In this case, the apparatus recited

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in Group I can be used to practice another materially different process such as measuring the transmission of a selected gas through a barrier material by measuring the concentration of gas in a measurement chamber rather than measuring the partial pressure as required by the process recited in Group IV. Furthermore, the apparatus does not require testing the integrity of the rough vacuum.

5. Inventions I and V are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because all of the limitations of Group V are not found in Group I. The subcombination has separate utility such as a system for measuring transmission of a gas through a barrier material wherein a vacuum system is utilized to continuously draw a vacuum through test chamber and a measurement chamber.

6. Inventions (I, III, V) and VI are related as process and apparatus for its practice. The inventions are distinct if it can be shown that either: (1) the process as claimed can be practiced by another materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different process. (MPEP § 806.05(e)). In this case, the apparatus recited in Groups I, III, and V can be used to practice another materially different process such as measuring the transmission of a selected gas through a barrier material by measuring the partial pressure of the gas by using the mass spectrometer rather than analyzing at

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any selected time the concentration of the gas of interest in the measurement chamber as required by the process recited in Group VI.

7. Inventions (I, III, V) and VII are related as process and apparatus for its practice. The inventions are distinct if it can be shown that either: (1) the process as claimed can be practiced by another materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different process. (MPEP § 806.05(e)). In this case, the apparatus recited in Groups I, III, and V can be used to practice another materially different process such as measuring the transmission of a selected gas through a barrier material by measuring the concentration of gas in a measurement chamber rather than correlating the transmission of helium through a barrier with a gas of interest as required by the process recited in Group VII.

8. Inventions II and IV are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because all of the limitations of Group IV are not found in Group II. The subcombination has separate utility such as a method for measuring the transmission of a selected gas through a barrier material, wherein the integrity of a rough vacuum is verified and the change in the partial pressure of the

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measurement chamber is measured over time and the change in the pressure is correlated to the permeability of the barrier material.

9. Inventions (II and IV) and VI are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because all of the limitations of Group VI are not found in Groups II or IV. The subcombination has separate utility such as a method for measuring the transmission of a selected gas through a barrier material by continuously metering the gas of interest to the test chamber while analyzing at any selected time the concentration of the gas of interest in the measurement chamber rather than measuring the partial pressure which is required of the processes recited in Groups II and IV.

10. Inventions (II, IV, and VI) and VII are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as

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claimed because all of the limitations of Group VII are not found in Groups II, IV, and VI. The subcombination has separate utility such as a method for measuring the transmission of a selected gas through a barrier material by correlating the transmission of helium through a barrier with a gas of interest.

11. Inventions III and IV are related as process and apparatus for its practice. The inventions are distinct if it can be shown that either: (1) the process as claimed can be practiced by another materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different process. (MPEP § 806.05(e)). In this case, the apparatus recited in Group III can be used to practice another materially different process such as measuring the transmission of a selected gas through a barrier material by measuring the concentration of gas in a measurement chamber rather than measuring the partial pressure as required by the process recited in Group IV. Furthermore, the process of Group IV does not require a calibration step for the mass spectrometer when the turbomolecular system is actuated.

12. Inventions III and V are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because all of the limitations of Group V are not found in Group III. The subcombination has separate utility such as a system for measuring transmission of a gas through a barrier material wherein a vacuum

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system is utilized to continuously draw a vacuum through test chamber and a measurement chamber.

13. Inventions IV and V are related as process and apparatus for its practice. The inventions are distinct if it can be shown that either: (1) the process as claimed can be practiced by another materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different process. (MPEP § 806.05(e)). In this case, the apparatus recited in Group V can be used to practice another materially different process such as measuring the transmission of a selected gas through a barrier material by measuring the concentration of gas in a measurement chamber rather than measuring the partial pressure as required by the process recited in Group IV.

14. Because these inventions are distinct for the reasons given above and the search required for one Group is not necessarily required for any other group, restriction for examination purposes as indicated is proper.

15. Applicants are reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(I).

16. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Daniel Larkin whose telephone number is (703) 308-6724. The Examiner can normally be reached on Monday-Friday from 7:00 AM - 4:00 PM.


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If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Hezron E. Williams, can be reached on (703) 305-4705. The FAX telephone number for this Technology Center (TC 2800, unit 2856) is (703) 308-7382.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0956.

Daniel Larkin

4 May 2003

  
**DANIEL S. LARKIN**  
**PRIMARY EXAMINER**